



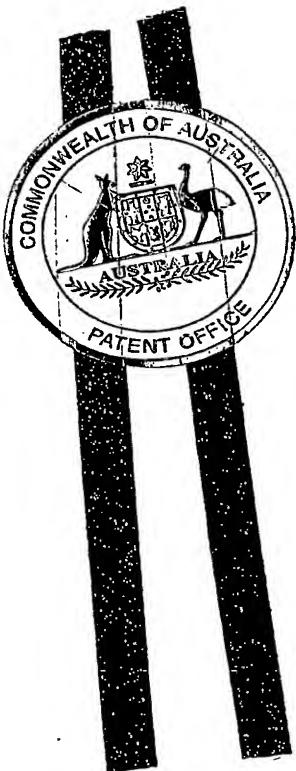
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I, JULIE BILLINGSLEY, TEAM LEADER EXAMINATION SUPPORT AND SALES hereby certify that annexed is a true copy of the Provisional specification in connection with Application No. 2003904236 for a patent by JOSEPH PUGLISI as filed on 11 August 2003.



WITNESS my hand this  
Seventeenth day of August 2004

JULIE BILLINGSLEY  
TEAM LEADER EXAMINATION  
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**PROVISIONAL SPECIFICATION FOR AN INVENTION ENTITLED:**

**Invention Title:** A Barley Trail Indication Apparatus  
**Name of Applicant:** Joseph Puglisi  
**Address for Service:** LESICAR PERRIN, 49 Wright Street, Adelaide, SA 5000

**The invention is described in the following statement:**

### A Berley Trail Indication Apparatus

The present invention relates to a berley trail indication apparatus and, in particular, to a float in connection with a submerged metal sail used to indicate the direction of the current at a pre-determined depth of water.

### BACKGROUND OF THE INVENTION

5 Creating and maintaining a berley or chum trail is of utmost importance in any form of bait-fishing. The aim of a berley trail is to draw fish from surrounding areas as close as possible to the area in which a fisherman is casting his or her bait. There are generally two types of berley trail, a surface trail which is aimed at luring surface feeding fish and bottom trails aimed at luring bottom feeding fish. The present  
10 invention may be used in either situation.

Surface trails typically involve the use of a berley pot which hangs over the boat slightly submerged and slowly dispensing the contained berley through small holes around its side. Bottom trails are usually achieved by using a weighted berley dispensing device that sits 1-2 metres above the sea floor. Although berley trails are  
15 known to be effective tools in attracting fish, a known problem exists in that the underwater current often pulls the trail into a direction unknown to the fisherman, this often being a result of current travelling in different directions at different depths of water beneath. Therefore, the area that is being fished is often not the area through which the berley trail is moving.

20 Although there are known methods for measuring the direction of water current, insofar as the applicant is aware there exists no device or apparatus that is easy to use and effectively indicates the direction in which a berley trail is moving, and more specifically at the depth of water in which it is being dispensed.

25 It is therefore an object of the present invention to overcome at least some of the aforementioned problems or to provide the public with a useful alternative.

### SUMMARY OF THE INVENTION

Therefore in one form of the invention there is proposed a berley trail indication apparatus including:

a floating device; and

a sail member in connection with said floating device said sail member being of a weight substantial enough to submerge said member but not of a weight substantial enough to submerge said connecting floating device.

5 Preferably said sail member is in tethered connection with said floating device.

Preferably said sail member is of a shape to enable sufficient capture of running water to thrust said member in the direction of said running water.

10 Preferably said sail member includes a flat substantially square base member with a longitudinal X-section member extending outwardly there from said X-section member guiding water to force against said base member.

Preferably said sail member includes a flat substantially triangular base member with a longitudinal member extending outwardly there from said member including angularly disposed fins directed toward the apexes of said triangular base member.

15 Preferably said sail member includes a cone-shaped outer edge that is open at either side said cone shape supported by an internal X-section frame.

Preferably said sail member is made of aluminium sheet metal of suitable weight.

20 Preferably the length of said tethered connection is adjustable. This ensures that the direction of current at different depths of water may be measured.

Preferably said apparatus is adapted to be used beside a boat whereby said floating device is secured to said boat using a second tethered connection.

Preferably said second tethered connection is that of a known fishing line.

#### BRIEF DESCRIPTION OF THE DRAWINGS

25 The accompanying drawings, which are incorporated in and constitute a part of this specification, illustrate several implementations of the invention and, together with the description, serve to explain the advantages and principles of the invention. In the drawings,

Figure 1 is a schematic perspective view illustrating the berley trail indication apparatus of the present invention;

Figure 2 is a top view of the berley trail indication apparatus of Figure 1 whereby the water current is moving toward the rear of the boat;

5 Figure 3 is a top view of the berley trail indication apparatus of Figure 1 whereby the water current is moving sideways relative to the boat;

Figure 4 is a top view of the berley trail indication apparatus of Figure 1 whereby the water current is moving at an angle sideways relative to the boat;

10 Figure 5 is a perspective view illustrating the metal sail of the present invention;

Figure 6 is a perspective view illustrating a second embodiment of the present invention; and

Figure 7 is a perspective view of a third embodiment of the present invention.

#### DESCRIPTION OF THE PREFERRED EMBODIMENTS

15 The following detailed description of the invention refers to the accompanying drawings. Although the description includes exemplary embodiments, other embodiments are possible, and changes may be made to the embodiments described without departing from the spirit and scope of the invention. Wherever possible, the same reference numbers will be used throughout the drawings and the 20 following description to refer to the same and like parts.

Figure 1 illustrates the berley trail indication apparatus 10 of the present invention. There is shown a boat 12 that is anchored 14 and including a berley pot 16 hanging from the side of the boat 12 so that a berley trail 18 is achieved. A floating device 20 is connected to the berley pot 16 through fishing line 22. A sail member 24 which is connected to the floating device 20 via rope 26 and submerged under its own weight, is of a design which captures flowing water thereby pulling the floating device 20 in the direction of the current acting on the sail member 24. This action indicates to the fishermen (not shown) in the boat 14 the direction in which the current is travelling and hence the direction in which the berley trail 18 is travelling. 25 Therefore, the apparatus 12 disclosed in the present invention indicates to fisherman an area of water 28 in which to cast their bait which corresponds with the same 30

area of water in which the berley travels. The advantages of being able to position your bait in the path of a berley trail 18 are well known.

Referring now to Figures 2-4, there are shown examples of the direction in which the floating device 20 is pulled in various natural situations that may occur at sea, i.e. when there is no or very slight wind as in Figure 2 where the current 30 is moving toward the rear of the boat 12; in Figure 3 where although there is wind 32 travelling toward the rear of the boat 12, the floating device 20 continues to move with the current 34 directed sideways to the boat 12; and in Figure 4 where once again although wind 36 is blowing toward the rear of the boat 12, the floating device 20 is being pulled in the direction of the current 38 at an angle to the boat that is almost opposing the direction of the wind 40. These are examples of situations in which the direction of the current and hence the direction of the indication apparatus 10 may vary regardless of the surface conditions such as wind and surface current. This is an important factor to consider as when fishing at sea, people often mistakenly assume that the berley is being carried in the direction of the wind, when in fact it may be moving in the opposite direction.

Figure 5 illustrates the metal sail 24 of the present invention. The metal sail 24 includes a substantially square base 42 with tapered corners and further includes an X-section member 44 extending outwardly therefrom such that the cross-section 20 of the X-section member 44 rests on the flat surface of the base 42. The diagonally crossed fins of the X-section member 44 are aligned with the diagonals of the square base 42, however, the fins do not extend the full length to the tapered edges of the base 42, but to a point slightly inwards from each tapered edge. This configuration of crossed fins sitting flat on the base 42 of the sail 24 ensures a sufficient capture of water when a current passes therethrough. The fins act as guides through which flowing water is drawn so that the water is forced to impact the base 42 of the sail 24 thereby forcing the sail 24 in the direction of the current. The X-section member 44 includes an aperture 46 that is located at the opposite end of the member 44 to the end that is connected to the base 42. The aperture 46 protrudes through the section 25 of the sail where the fins are joined and is adapted to be connected to the rope 26 as shown in Figure 1. The connection between rope 26 and sail 24 in Figure 5 is that of a simple and well known fishing knot 48.

It is to be understood that the length of rope 26 between float 20 and sail 24 is adjustable. This allows the user to assemble the apparatus 10 of the present 35 invention to suit the environment in which he or she is fishing. For example, if a

berley trail 18 is started at a particular depth below the surface of water, the user may simply lower the sail 24 to the same or similar depth so that the floating device 20 still remains visible above the surface thereby indicating the direction of current and hence the direction of the berley trail 18 at that particular depth. This is an especially

5 important consideration as water current in the ocean is known to travel in different directions at different depths. Preferably, in normal conditions where the berley trail 18 is commenced at the surface as shown in Figure 1, a length of rope 26 of 1.5m between floating device 20 and sail 24 is sufficient for accurate indication.

Preferably, the sail 24 is made of aluminium sheet metal and is of a weight to

10 allow it to sink but not of a weight great enough to pull the floating device 20 down with it. The sail 24 may be constructed of any material suitable for this purpose, metal or non-metal, however, a rustproof material is preferable. The connection between the X-section member 44 and the base 42 is preferably achieved through welded sections between each fin and the base 42, however, any suitable connection means

15 to ensure that the sail will not break during a strong current will suffice.

Figures 6 and 7 illustrate further embodiments of the present invention, and more specifically, alternate designs of the metal sail.

Figure 6 illustrates a second sail 50 including a flat, substantially triangular base 52 with a correspondingly shaped member 54 extending centrally therefrom, that is, a member 54 including three angularly disposed fins directed toward each apex of the triangular base 52. The sail 50 of the second embodiment works in substantially the same way as that of the first embodiment in that flowing water is drawn along the fins until it impacts the base member 52 thereby forcing the entire sail 50 in the direction of the current. An alternate connection means 56 is also

20 illustrated, namely that of a well known fishing swivel whose metal clip 58 is looped through the aperture 60.

25

Figure 7 illustrates a third sail 62 including a cone-shaped outer edge 64 that contains an internal X-section frame 66 for capturing water therein. Neither of the ends 68 or 70 of the sail 62 are sealed so flowing water is able to pass through, however, its cone-shaped configuration provides for a larger surface area to be

30 impacted by the water, thereby achieving a more effective water capture means. This sail 62 could well be used in calmer conditions where a greater capture of water is required to adequately indicate the direction of the berley trail 18. An aperture 72 is

located at the end of the sail 62 of larger diameter between joining fins of the frame 66.

It is to be understood that the physical aspects of the apparatus 10 as represented herein are not intended to be limiting. For example, the floating device 20 as illustrated in Figure 1 is a cone-shaped float designed with a rounded top and lower tapered section adapted to be submerged. This style of float is well known. A floating device that is shaped substantially flat which simply sits on the surface of the water will achieve the same objective. Furthermore, the present invention is not intended to be limited to the abovementioned tethering means, namely the fishing line 22 between berley pot 18 and floating device 20, and rope 26 between floating device 20 and sail 24. Any tethering means may be used that are capable of supporting the weight of the sail 24 as well as any subsequent force supplied by the strength of the captured current.

It should now be apparent to those skilled in the art that the disclosed invention provides for a means of effectively indicating to fishermen the direction in which their berley trail 18 is moving through the use of a submerged sail 24 that is forced in the direction of the moving current and in the process moving a floating device 20 that is visible to the fishermen. Furthermore, the depth of the sail 24 is adjustable to suit the depth at which the berley 18 is being dispensed. The apparatus therefore provides fishermen with an indication of an area of water in which to cast their baits which corresponds with the area of water through which their berley trail 18 is moving regardless of surface conditions such as wind or conditions above or below the sail depth.

Further advantages and improvements may very well be made to the present invention without deviating from its scope. Although the invention has been shown and described in what is conceived to be the most practical and preferred embodiment, it is recognized that departures may be made therefrom within the scope and spirit of the invention, which is not to be limited to the details disclosed herein but is to be accorded the full scope of the claims so as to embrace any and all equivalent devices and apparatus.

Dated this 11 August 2003

Joseph Puglisi  
By his Patent Attorneys  
35 LESICAR PERRIN

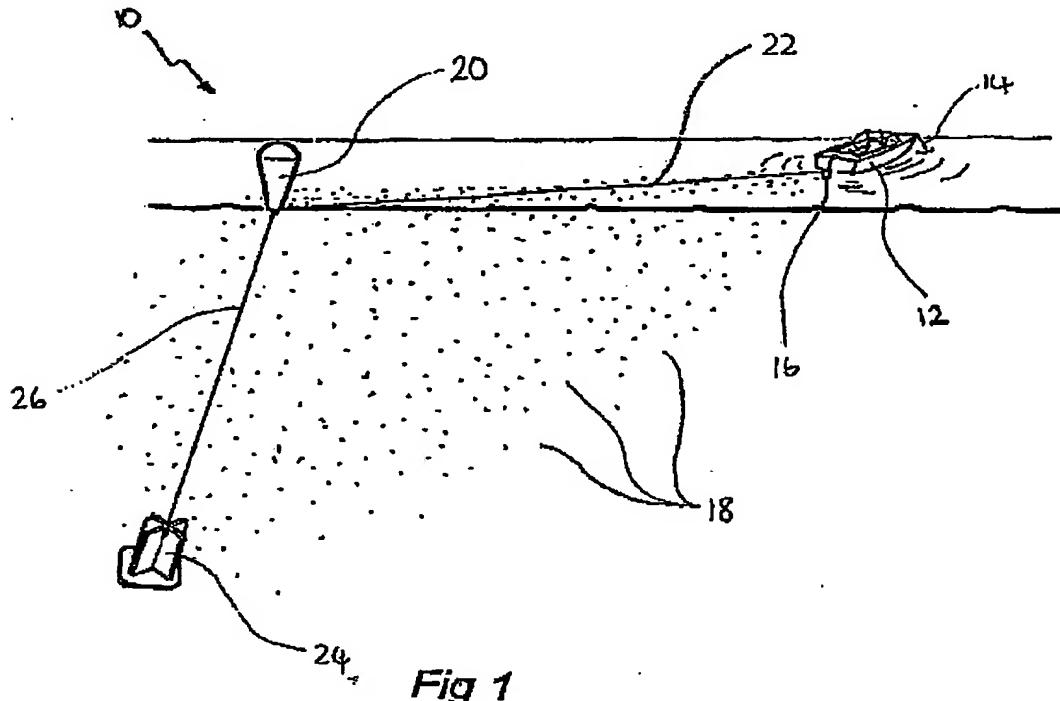
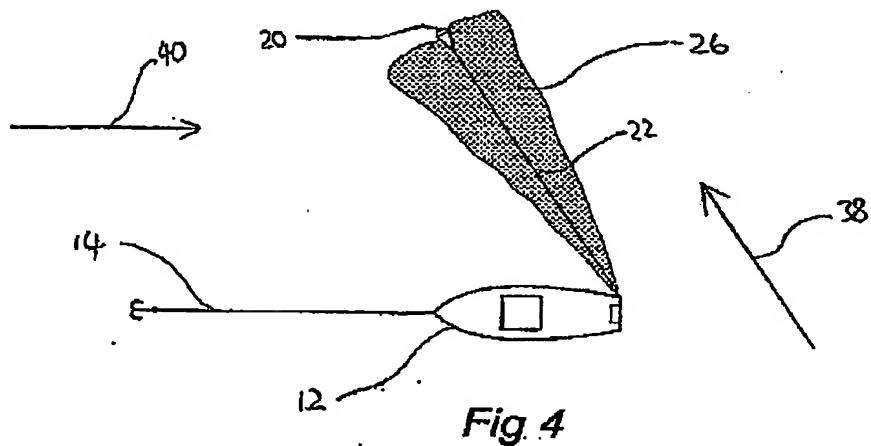
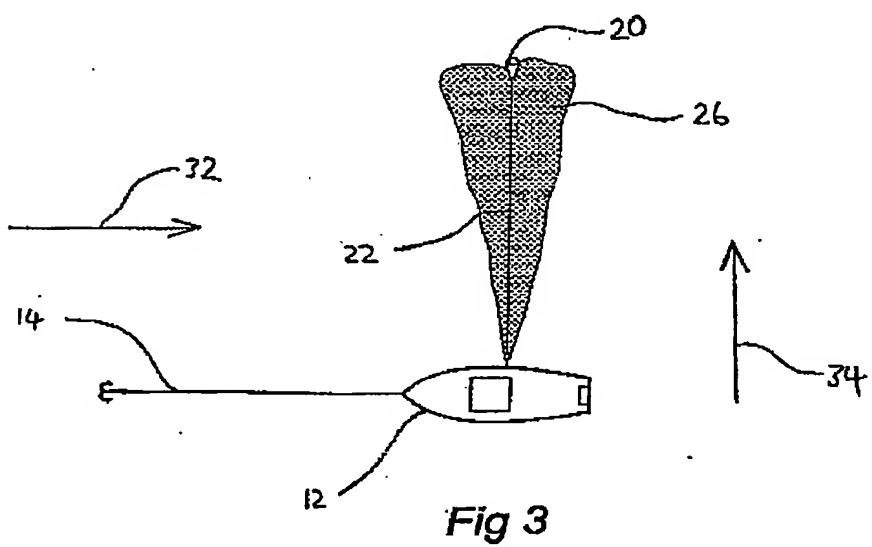
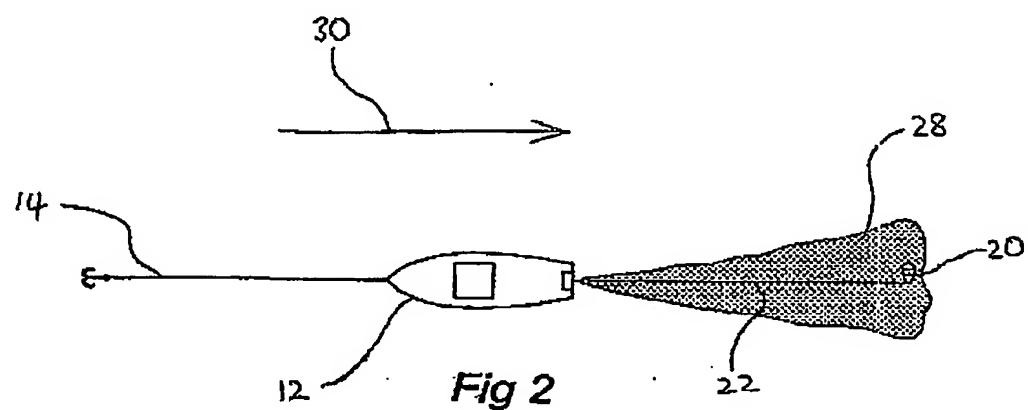


Fig 1



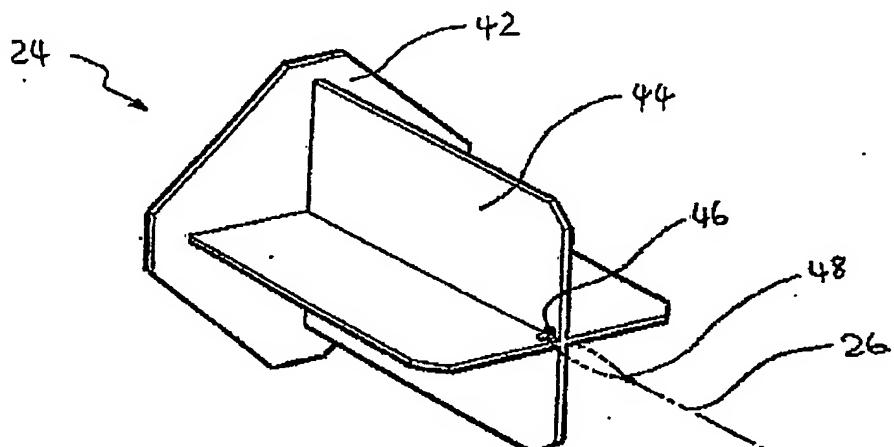


Fig 5

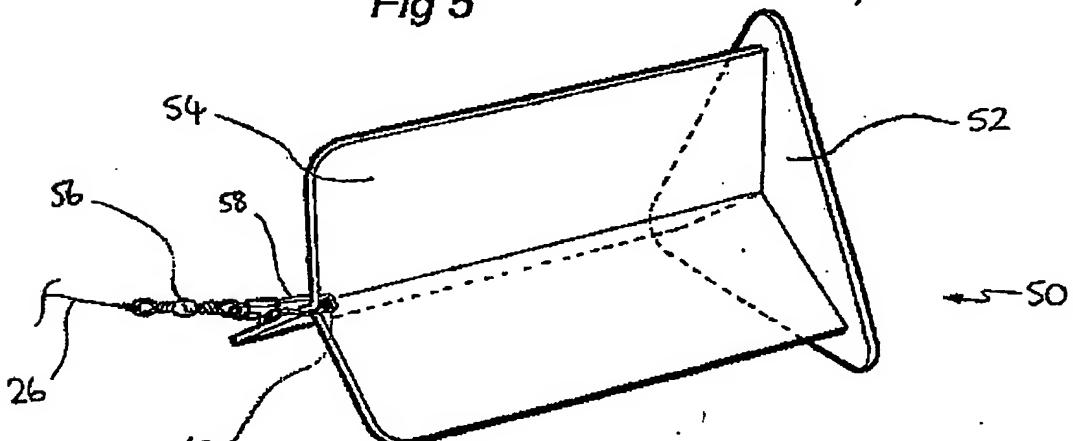


Fig 6

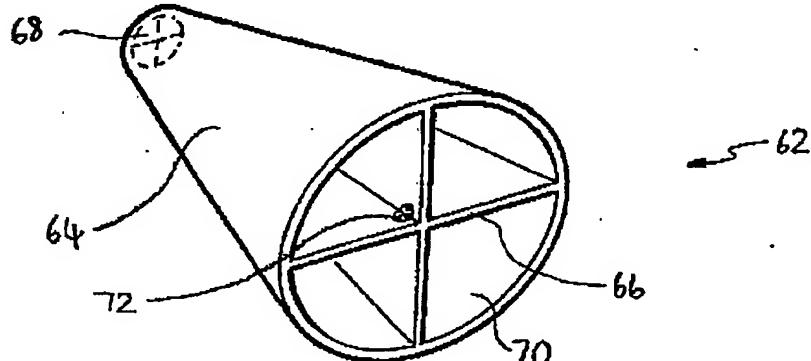


Fig 7

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